

ABSTRACT OF THE DISCLOSURE

A semiconductor device which has a high performance integrated circuit formed of an inexpensive glass substrate and capable of processing a large amount of information and
5 operating at higher data rates. The semiconductor device includes semiconductor elements stacked by transferring a semiconductor element formed on a different substrate. A resin film is formed between the stacked semiconductor elements and a metal oxide film is partially formed between the stacked semiconductor elements as well. A first electric signal is converted to an optical signal in a light emitting element electrically connected to one of the stacked
10 semiconductor elements. Meanwhile, the optical signal is converted to a second electric signal in a light receiving element electrically connected to another one of the stacked semiconductor elements.